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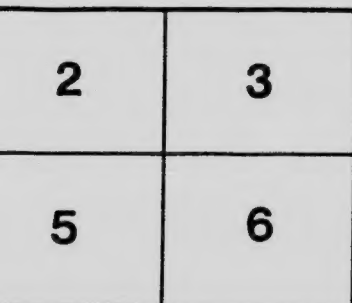
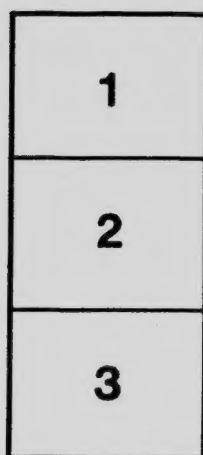
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THE PROBABLE SCARCITY OF RENNET FOR THE MANUFACTURE OF CHEESE

WITH SOME DIRECTIONS FOR SECURING A SUPPLY

BY

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OTTAWA, January, 1916.

During the last 30 years, the commercial extract of rennet, prepared in special laboratories, has entirely superseded the old fashioned coagulating fluid which the cheesemaker obtained by soaking calves' stomachs in water. In the early days the stomachs, or rennets, were procured from the patrons of the cheese factory, but later a better cured article was obtained from Continental Europe, and chiefly from Germany. This home made article had its defects, and when the scientifically produced extract was put on the market, it very quickly supplanted the other, so that as far as the present generation of cheesemakers is concerned, the preparation of rennet is practically a lost art.

The manufacturers of extract have depended upon the European supply of rennets for their raw material, but that source has now been cut off by the war. Efforts, partially successful, have been made to secure their requirements from farmers, butchers and abattoirs, but the growing scarcity is shown by the constantly advancing price of extract. There is some danger of a real shortage, a contingency that would be disastrous to the cheesemaking industry.

There is no reason, however, why our needs in this respect could not be supplied locally, if farmers and butchers were to save all the stomachs of the calves which are slaughtered at the right age, and it is with a view of giving some directions as to the part of the stomach which is useful, and how to cure it, that these notes are published.

Chr. Hansen's Laboratory Little Falls, N.Y., one of the principal manufacturers of rennet extracts, gives the following directions for saving and preparing calves' stomachs for this purpose:—

"Butchers or farmers, many of whom have handled rennets in the old countries, and are familiar with their preservation, can make a good business of collecting and preparing rennets in this country where they have heretofore mostly been thrown away.

Only the rennets from sucking or milk-fed calves are valuable. The stomachs of calves fed on grass or other solid food are not good for the purpose.

DIRECTIONS.

When the calf is killed, immediately cut out the rennet, leaving a portion of the third stomach (the book) attached to it. (See Fig. 1.)

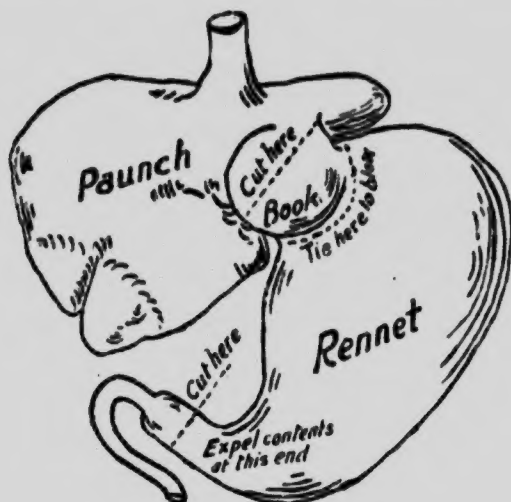


Fig. 1.

Carefully squeeze out the contents of the rennet (consisting of coagulated milk or other partially digested food), but do not turn the rennet inside out or wash it, as that would cause a loss of part of the ferment. Rinse off any dirt from the outside (but not inside), and trim off any adhering fat.

Either of the following methods may be used for preparing the rennet for shipment to the laboratory.

Blowing up the rennets.—Tie up the opening in the large end, apply a string at the narrow passage between the third stomach or book, and the rennet. Insert in the opening of the long neck at the other end, a small tube of glass or any other material, blow up the rennet as hard as possible, like a football, and tie up with a string under the tube. Where many rennets are handled, it is convenient to have a pointed tube connected with air-pressure to inflate them. The long, narrow neck contains but little of the ferment and may be cut off after drying.

Hang the inflated rennets to dry in a draughty shed, or a warm, dry room, but do not expose them to more heat than that of an ordinary warm room. Never hang rennet in the open, exposed to the sun.

Where a fan can be used to create draught, it will help dry the rennets quickly, and the process should not take more than a week. They should not be left moist long enough to mold or putrefy, and care should be taken that they are not infested with maggots or insects after being dried and bundled for shipment, i.e., they should be thoroughly dried and carefully protected from flies and other insects.

When a sufficient number of thoroughly dried rennets have accumulated, cut off the neck and let out the air; tie up the rennets in bundles of 25 or 50, and pack in cases or barrels.

Fresh salted.—When it is not convenient to blow up and dry the rennets, they may be prepared for immediate shipment by splitting open and salting.

Squeeze out the contents of the stomach, trim off the fat, split open and cut off book and small end. Salt thoroughly on both sides, using sufficient so that after allowing them to drain, there will still be plenty of dry salt left between the rennets. Leave them in a cool place to drain over night, then pack for shipment in a tight tub or barrel."

The stomachs, or more properly that part of the stomachs known as the rennet, may be sold to manufacturers of extract or disposed of to local cheese factories, should it be necessary to revert temporarily to the old practice of preparing the rennet. The old practice was so unsatisfactory, however, that the sale of rennets to manufacturers of extract is recommended.

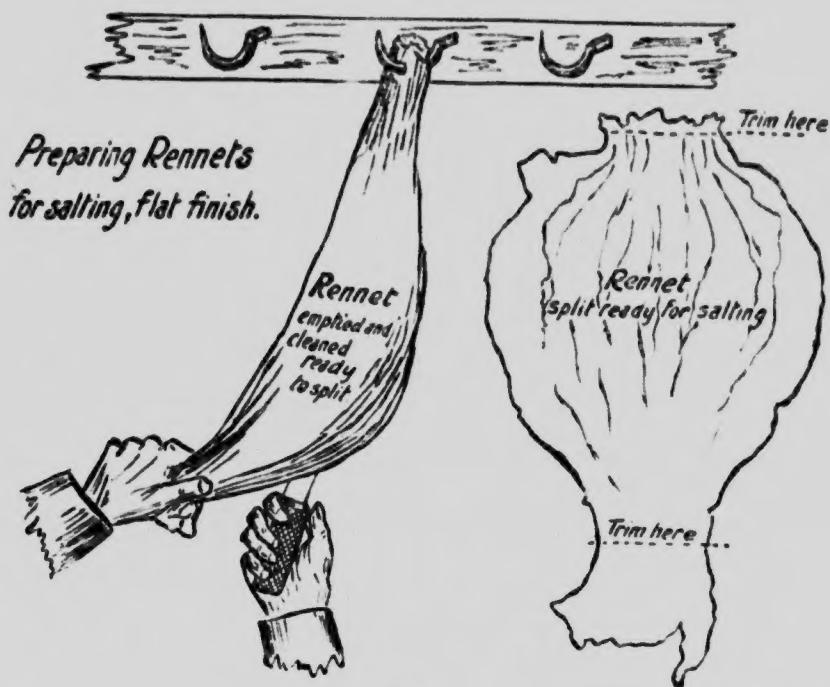


Fig. 2.

There are no manufactories of extract in Canada, and it is doubtful if it would pay to engage in the business in this country. In any case, it will be necessary to deal with the laboratories in the United States until such time as the manufacture of extract is started in Canada. The best known laboratories in the United States are Chr. Hansen's Laboratory, Little Falls, N.Y., and Marshall's Dairy Laboratory, Madison, Wis.

The author does not believe that the home made article could be used without serious injury to the quality of our cheese, and these notes are published rather to encourage the saving of rennets than to promote their use by the cheesemakers, but in case it should be necessary, as a last resort, for the cheesemaker to prepare his own rennet, a few directions will be useful.

DIRECTIONS FOR PREPARING RENNETS.

Four tin vessels, or glazed earthenware crocks, each of five to ten gallon capacity, should be provided. Cut the rennets into several pieces, and place as many in one vessel as will be needed for a day's supply, allowing one good rennet for 2,000 to 2,500 lbs. of milk. Add about one gallon of pure sterilized water for each rennet. A few ounces of salt to each gallon of water should also be added. Cover the vessel, keep it in a cool place, stir the contents frequently and once a day give the soaking rennets a good rubbing. The solution should be ready for use on the third day. By having a number of vessels, a fresh supply for every day's use will be available. Strain the solution through a cheese cloth before using and add the whole of it to the milk without dilution. Any cheesemaker will soon learn to gauge the proper strength and govern it by the number of rennets used.

The containers, strainers, stirrers, or other utensils coming in contact with the solution, should be well washed and sterilized every time a fresh supply is made.



